



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE, PUBLISHING THE
OFFICIAL NOTICES AND PROCEEDINGS OF THE AMERICAN ASSOCIATION
FOR THE ADVANCEMENT OF SCIENCE.

FRIDAY, AUGUST 5, 1904.

CONTENTS:

<i>The State University and Research:</i> PROFESSOR T. C. CHAMBERLIN.....	161
<i>The Mosely Educational Commission, II.:</i> PROFESSOR HENRY E. ARMSTRONG.....	165
<i>Scientific Books:—</i>	
<i>Halsey's The Metric Fallacy, Dale's The Metric Failure in the Textile Industry:</i> PROFESSOR W. LE CONTE STEVENS. <i>Clements on the Development and Structure of Vegetation:</i> PROFESSOR W. F. GANONG. <i>Eakle's Mineral Tables:</i> PROFESSOR A. J. MOSES	172
<i>Scientific Journals and Articles.....</i>	178
<i>Societies and Academies:—</i>	
<i>The New York Section of the American Chemical Society:</i> DR. H. C. SHERMAN....	178
<i>Discussion and Correspondence:—</i>	
<i>Asymmetron lucayanum in Bermuda:</i> PROFESSOR E. L. MARK. <i>The Ascent of Water in Trees:</i> PROFESSOR C. R. BARNES. <i>Concerning Spectacles:</i> C. R. E.	179
<i>Special Articles:—</i>	
<i>The Formation of Toxic Products by Vegetable Enzymes:</i> C. A. BROWNE, JR. <i>The Endosperm Enzyme of Phœnix Dactylifera:</i> DR. RAYMOND H. POND.....	179
<i>Quotations:—</i>	
<i>The German Yellow-fever Expedition.....</i>	182
<i>Current Notes on Meteorology:—</i>	
<i>Monthly Weather Review; Ocean Meteorology; Wheat in Canada; International Cloud Atlas; British Meteorological Council; Antarctic Winds; Notes:</i> PROFESSOR R. DEC. WARD	182
<i>Stomach Stones and Food of Plesiosaurs:</i> BARNUM BROWN.....	184
<i>The Alpine Laboratory of the Botanical Seminar of the University of Nebraska.....</i>	185
<i>The Cultivation of Cotton in the West Indies</i>	186
<i>Decennial Publications of the University of Chicago</i>	187
<i>Dr. J. C. McConnell.....</i>	188
<i>Scientific Notes and News.....</i>	189
<i>University and Educational News.....</i>	192

MSS. intended for publication and books, etc., intended for review should be sent to the Editor of SCIENCE, Garrison-on-Hudson, N. Y.

THE STATE UNIVERSITY AND RESEARCH.*

It is the privilege of the private school, the denominational institution and the independent university to select the phases of education to which they shall devote themselves; but the appropriate sphere of a state system of education is predetermined by the inherent relations which the state sustains. The function of all state institutions is the welfare of the commonwealth. By first intention, the state is not concerned with the individual, but with the aggregate body of its citizens. The state must necessarily deal with individuals, but rather as integers of the aggregate body than as individuals. State education, therefore, in the strictest construction, and in the highest ideal, is the education of the aggregate body that forms the commonwealth. Education from the view-point of other institutions may deal primarily with the individual, and only secondarily with the aggregate. State education deals primarily with the aggregate, and only incidentally with the individual as a constituent of the aggregate. Obviously I am defining the ideal rather than the actual fact of practice; rather of the goal to be at length attained than any present achievement.

In its earliest stages, formal education seems to have been altogether individual. Gradually it grew to be the privilege of select classes, and at length, but only at a late day and among the foremost peoples, it has come to be a possibility for all.

* One of the two convocation addresses given on the occasion of the semicentennial jubilee of the University of Wisconsin.

make the tables valuable for short courses or for field work. A. J. MOSES.

SCIENTIFIC JOURNALS AND ARTICLES.

THE July number (volume 5, number 3) of the *Transactions* of the American Mathematical Society contains the following papers:

E. B. VAN VLECK: 'The convergence of algebraic continued fractions whose coefficients have limiting values.'

W. FINDLAY: 'The Sylow subgroups of the symmetric group.'

E. W. BROWN: 'On the smaller perturbations of the lunar arguments.'

E. V. HUNTINGTON: 'Sets of independent postulates for the algebra of logic.'

H. F. Blichfeldt: 'On the order of linear homogeneous groups (second paper).'

J. B. SHAW: 'Algebras defined by finite groups.'

O. VELEN: 'A system of axioms for geometry.'

THE contents of the *American Journal of Science* for July are as follows:

B. B. BOLTWOOD: 'Ratio of Radium to Uranium in some Minerals.'

F. M. McCLENAHAN: 'Constitution of Hydrous Thallic Chloride.'

E. H. SELLARDS: 'Study of the Structure of Paleozoic Cockroaches, with Descriptions of New Forms from the Coal Measures.'

W. A. PARKS: 'Remarkable Parasite from the Devonian Rocks of the Hudson Bay Slope.'

C. R. EASTMAN: 'Asterolepid Appendages.'

A. B. PLOWMAN: 'Electrotropism of Roots.'

O. C. LESTER: 'Oxygen Absorption Bands of the Solar Spectrum.'

The Journal of Nervous and Mental Diseases of July, 1904, contains two articles dealing with Multiple Sclerosis, one by Drs. W. G. Spiller and C. D. Camp of Philadelphia containing a report of two cases and some general observations on the nature of the condition, and the other by Dr. Smith Ely Jelliffe, of New York, on the occurrence and etiology of multiple sclerosis, as observed since the opening of the Neurological Department in the Vanderbilt Clinic of New York City. The interesting fact is brought out that this disease is less frequent than in foreign countries. There is also a discussion of Uremic Hemiplegia, by Dr. T. H. Weisenburg, of Philadelphia, in which he gives reports of several

cases, and the results of various experiments. The *Periscope* contains extended abstracts from *The American Journal of Insanity*, *Revue de Psychiatrie* and *Nouvelle Iconographie de la Salpêtrière*, as well as miscellany and reviews of the latest psychiatric and neurological books, published in this country and abroad.

SOCIETIES AND ACADEMIES.

THE AMERICAN CHEMICAL SOCIETY.

NEW YORK SECTION.

At the last meeting of the season, held June 10, at the Chemists' Club, 108 West 55th Street, the section elected as officers for the ensuing year:

Chairman—Wm. Jay Schieffelin.

Vice-Chairman—F. D. Dodge.

Secretary-Treasurer—F. H. Pough.

Additional Members of Executive Committee—E. H. Miller, M. T. Bogert, Wm. McMurtrie and T. J. Parker.

The following papers were read:

Alloys (Illustrated): WILLIAM CAMPBELL.

This paper gave the results obtained in a continuation of the work reported at the January meeting. The work will appear in full in an early number of the *Journal of the American Chemical Society*.

The Optical Rotation of Some Cyclic Compounds: F. D. DODGE.

Dr. Dodge called attention to the fact that many of the constituents of the volatile oils contain ring-nuclei of three, four, five or six atoms, with varying degrees of saturation. These compounds are most frequently asymmetric; which is shown by the optical activity.

The questions as to how far the observed rotation phenomena are in harmony with the formulæ which have been proposed, and as to whether the van't Hoff hypothesis is universally applicable, were discussed. It is shown that in single ring nuclei, racemism is generally theoretically possible, and often observed. In the cases of some double nuclei (as the camphor group) racemism appears to be impossible owing to the peculiar molecular structure. The exceptional optical properties of *menthone* were discussed, and a possible explanation found in a peculiar isomerism